

NASA CR-143824

SCHEMATICS

for

MAN-COMPUTER INTERACTIVE DATA  
ACCESS SYSTEM (McIDAS)

Final Report on Contract NAS5-23296

BOOK 3

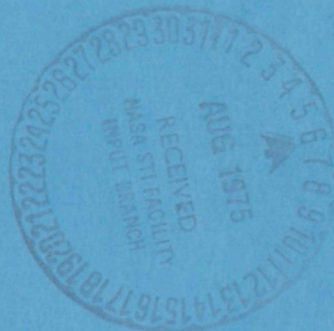
(NASA-CR-143824) SCHEMATICS FOR  
MAN-COMPUTER INTERACTIVE DATA ACCESS SYSTEM  
(MCIDAS), BOOK 3 Final Report (Wisconsin  
Univ.) 109 p HC \$5.25

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Unclas  
31275



REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVED

THE UNIVERSITY OF WISCONSIN			
SPACE SCIENCE & ENGINEERING CENTER			
MADISON, WISCONSIN			
TITLE			
McIDAS SYSTEM DRAWING LIST			
SCALE	DRAFTSMAN	DATE	CHECKER
None	WBL	March 75	
NEXT HIGHER ASSEMBLY		PRODUCT ASSURANCE	
		McIDAS System Drawing List	
PROJECT NO.	SIZE	SHEET 1 OF 2	
7001	A		



		<u>DRAWING NO.</u>	<u>SIZE</u>	<u>TITLE</u>	<u>DATE</u>
		7001-0001	A	McIDAS System Drawing List	March 75
		7001-0002	A	McIDAS System Functional Block Diagram	March 75
		7001-0003	A	McIDAS System Detailed Functional Block Diagram	March 75
REVISION					
DRAWING NO. 7001-0001					

McIDAS System Drawing List

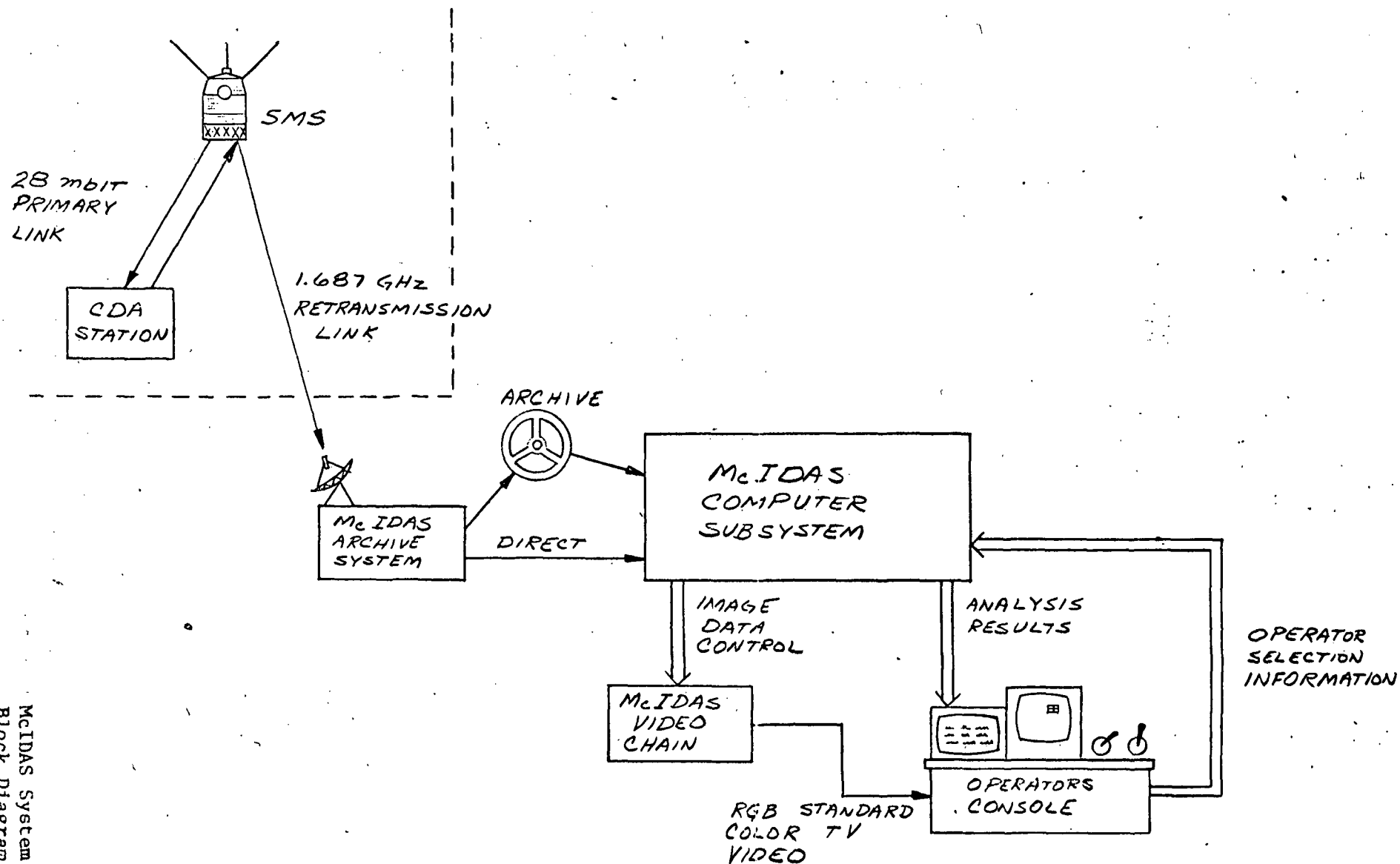


FIGURE 1 ; McIDAS SYSTEM FUNCTIONAL  
BLOCK DIAGRAM.



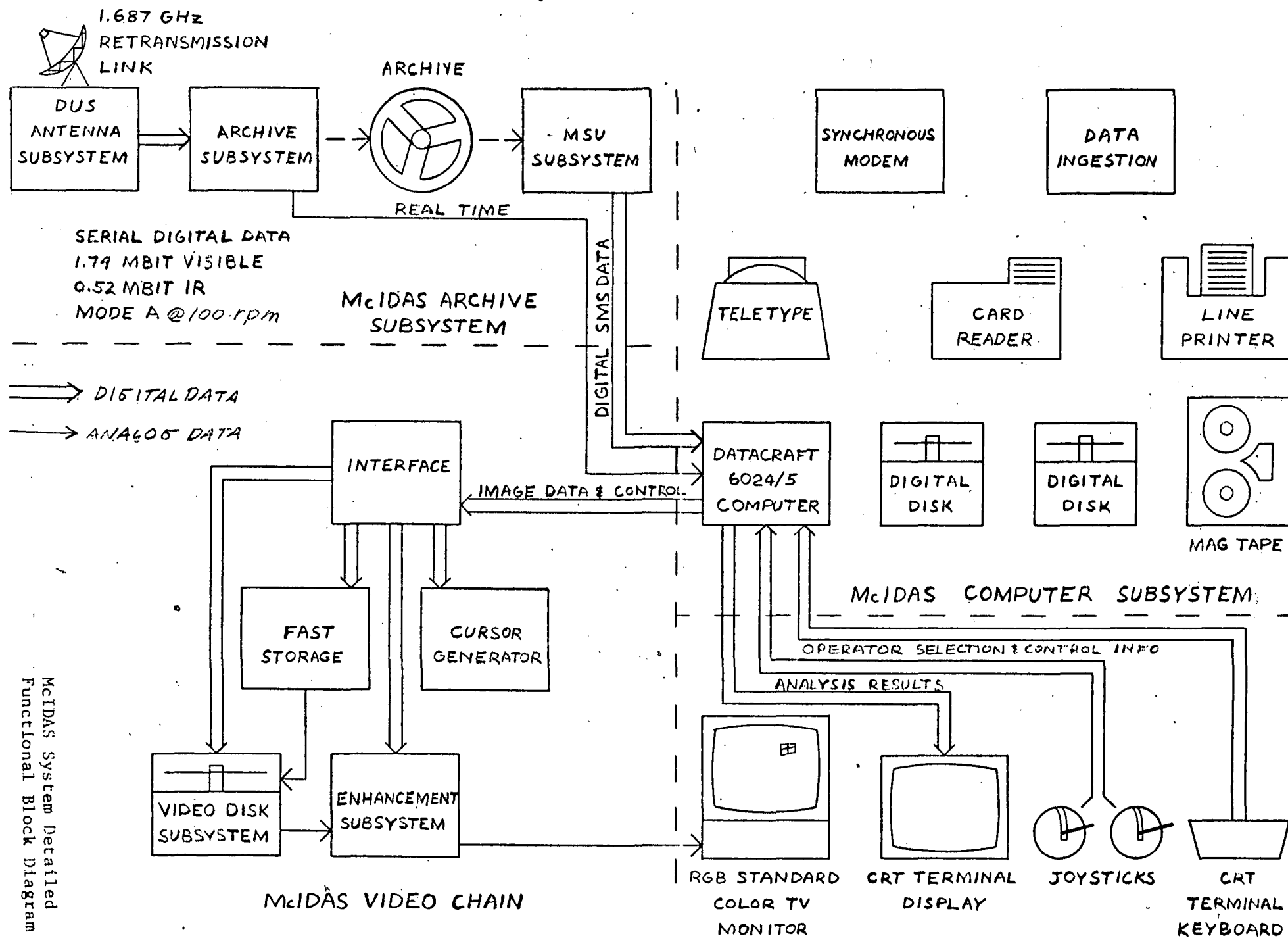


FIGURE 2; McIDAS SYSTEM DETAILED  
FUNCTIONAL BLOCK DIAGRAM

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THE UNIVERSITY OF WISCONSIN			
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TITLE			
McIDAS ARCHIVE SYSTEM DRAWING LIST			
SCALE	DRAFTSMAN	DATE	CHECKER
None	WBL	March 75	
NEXT HIGHER ASSEMBLY		PRODUCT ASSURANCE	
PROJECT NO.	SIZE	SHEET	DRAWING
7001	A	1 OF 2	

McIDAS Archive System  
Drawing List



	DRAWING NO.	SIZE	TITLE	DATE
REVISION	7001-1001	A	McIDAS Archive System Drawing List	March 75
	7001-1002	D	McIDAS Archive System Detailed Functional Block Diagram	March 75
	7001-1003	A	SMS Isolator	March 75
	7001-1004	D	DUS/Archive Interface Data Stripper & Display	March 75
	7001-1005	D	Archive Control	March 75
	7001-1006	C	Archive Control Layout	March 75
	7001-1007	D	Data Buffer	March 75
	7001-1008	D	Data Buffer Layout	March 75
	7001-1009	E	Documentation Generator	March 75
	7001-1010	D	Modulator	March 75
DRAWING NO. 7001-1001	7001-1011	B	Head Clog Monitor	March 75
	7001-1012	B	Archive Relay Interface	March 75
	7001-1013	C	Slant Track Control Board	March 75
	-1014	B	RF Limiter	March 75
	-1015	D	Demodulator	March 75
	-1016	E	MSU Control	March 75
	-1017	B	MSU Relay Interface	March 75
	-1018	D	Universal 24 Bit Interface (5 Drawing Set)	March 75
	-1019	B	Archive Power Bay	March 75

McIDAS Archive System  
Drawing List



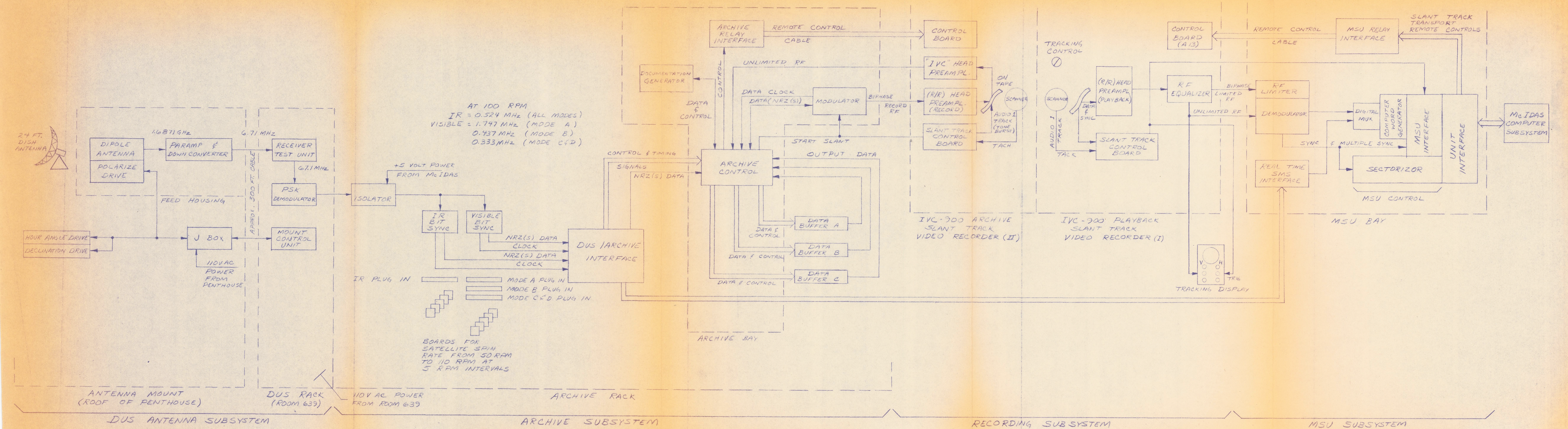
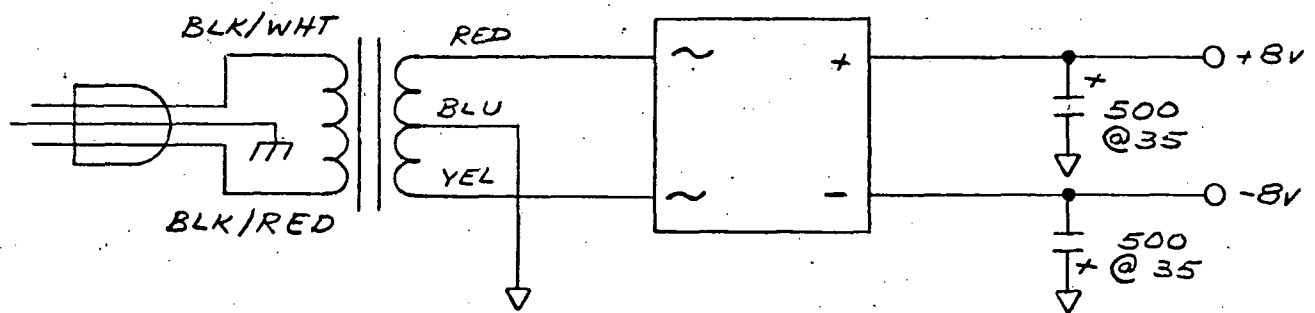
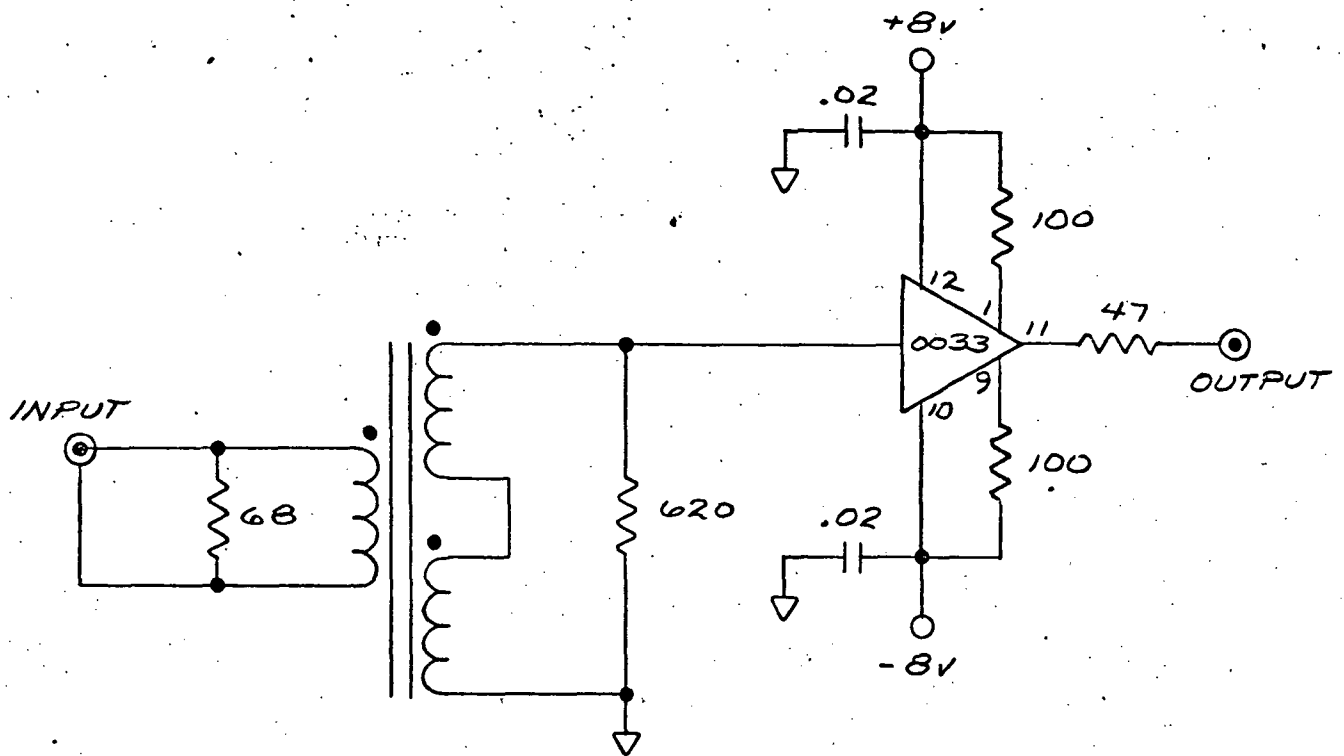


FIGURE 3  
 McIDAS ARCHIVE SYSTEM DETAILED  
 FUNCTIONAL BLOCK DIAGRAM



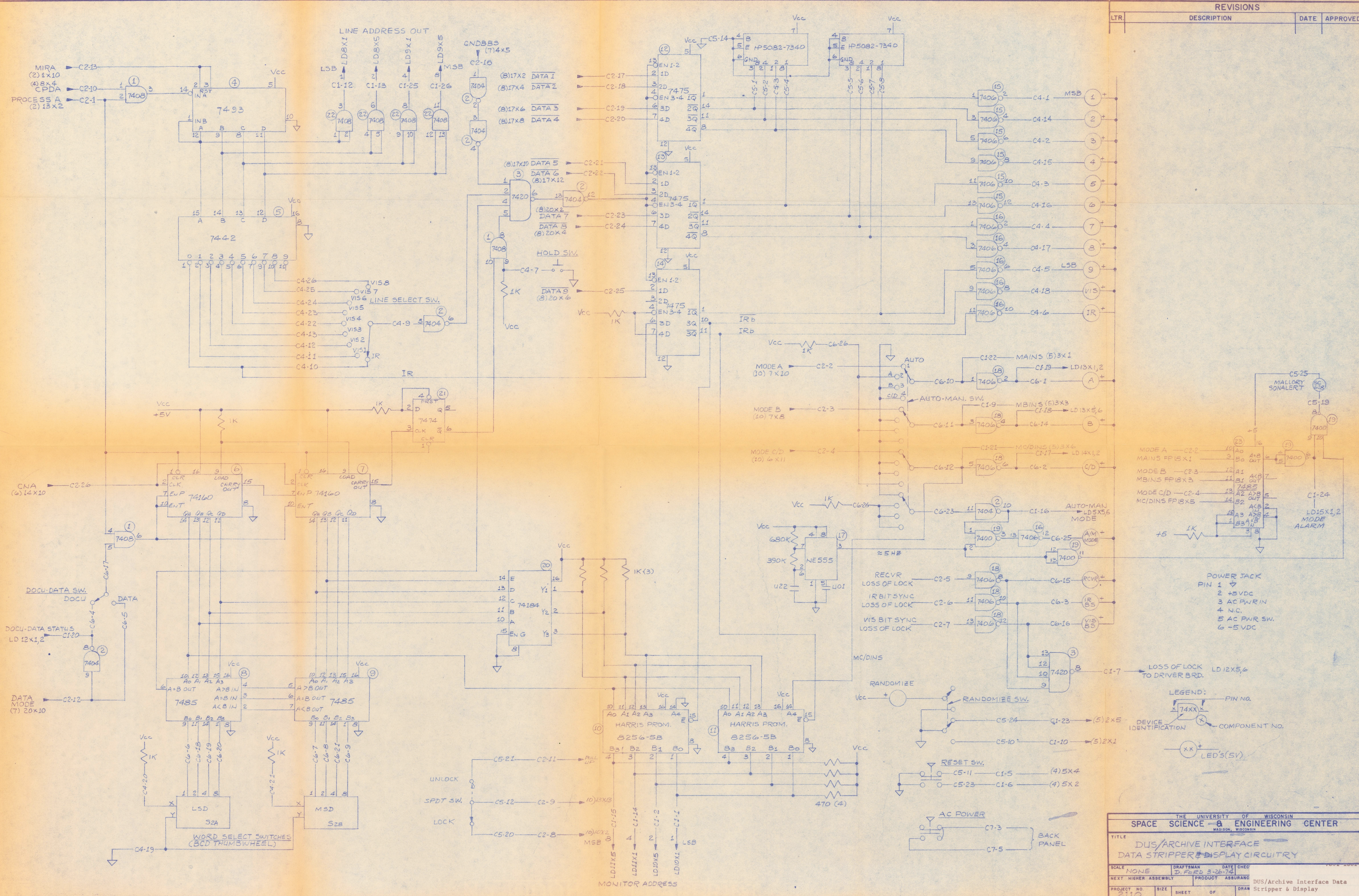
# REVISIONS

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TITLE					
SMS ISOLATOR					
SCALE	NONE	DRAFTSMAN	DATE	CHECKER	
NEXT HIGHER ASSEMBLY		PRODUCT ASSURANCE			
PROJECT NO.	SIZE	SHEET	OF	DRAWING	
7001	A	1	1		





REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVED

MODE A — C2-2  
MAINS PP18X1 — C1-9  
MODE B — C2-3  
MBINS PP18X3 — C1-8  
MODE C/D — C2-4  
MC/DINS PP18X5 — C1-7

POWER JACK  
PIN 1 —  
2 — +5VDC  
3 — AC PWR IN  
4 — N.C.  
5 — AC PWR SW.  
6 — -5VDC

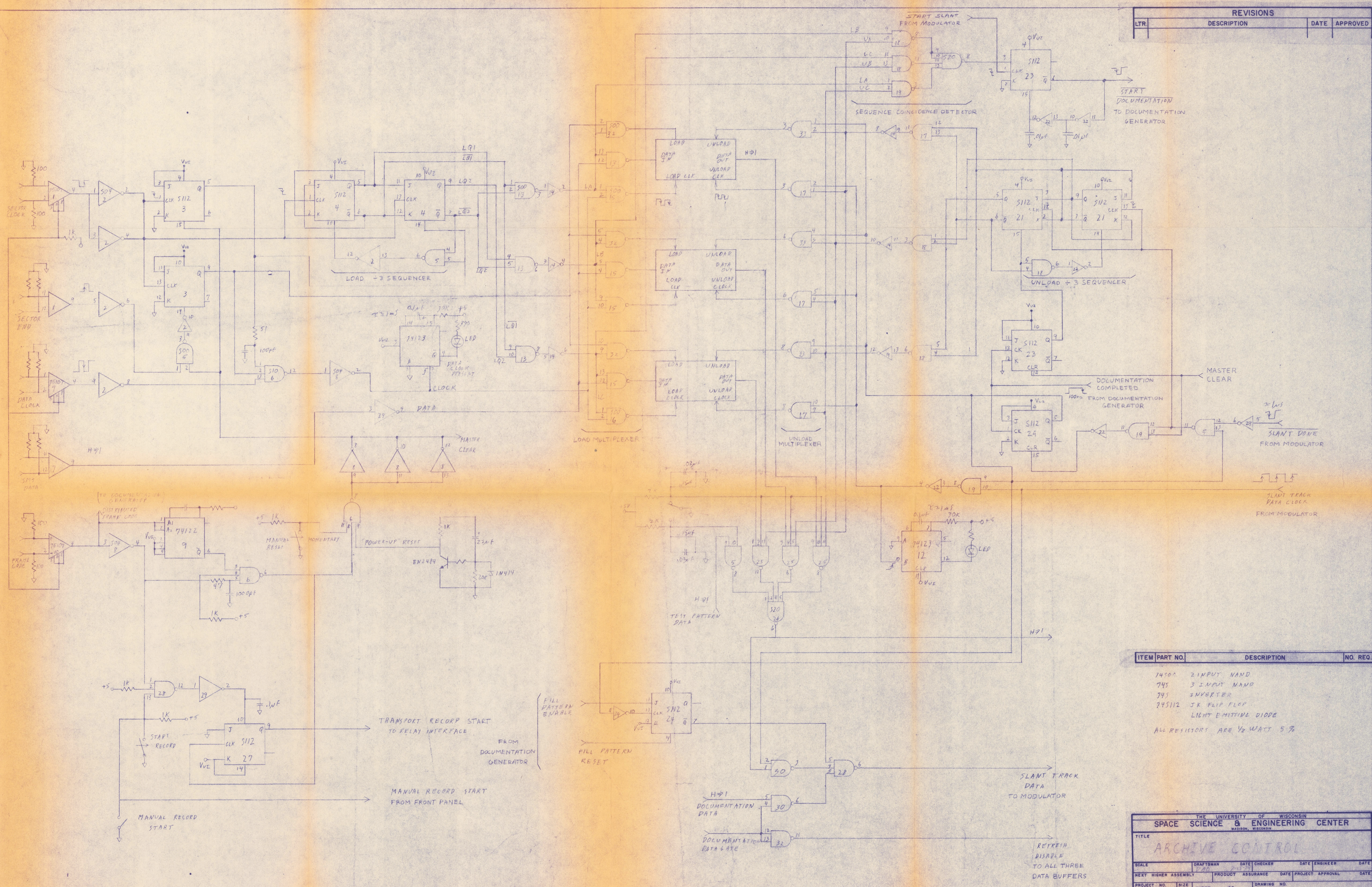
LEGEND:  
PIN NO. —  
DEVICE IDENTIFICATION —  
COMPONENT NO. —  
LED'S (5V) —

THE UNIVERSITY OF WISCONSIN  
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TITLE  
DUS/ARCHIVE INTERFACE  
DATA STRIPPER & DISPLAY CIRCUITRY

SCALE NONE DRAFTSMAN DATE CHECK  
NEXT HIGHER ASSEMBLY PRODUCT ASSURANCE  
PROJECT NO. 2110 SIZE SHEET OF DRAW DUS/Archive Interface Data Stripper & Display  
7001-1004





REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

ITEM	PART NO.	DESCRIPTION	NO. REQ.
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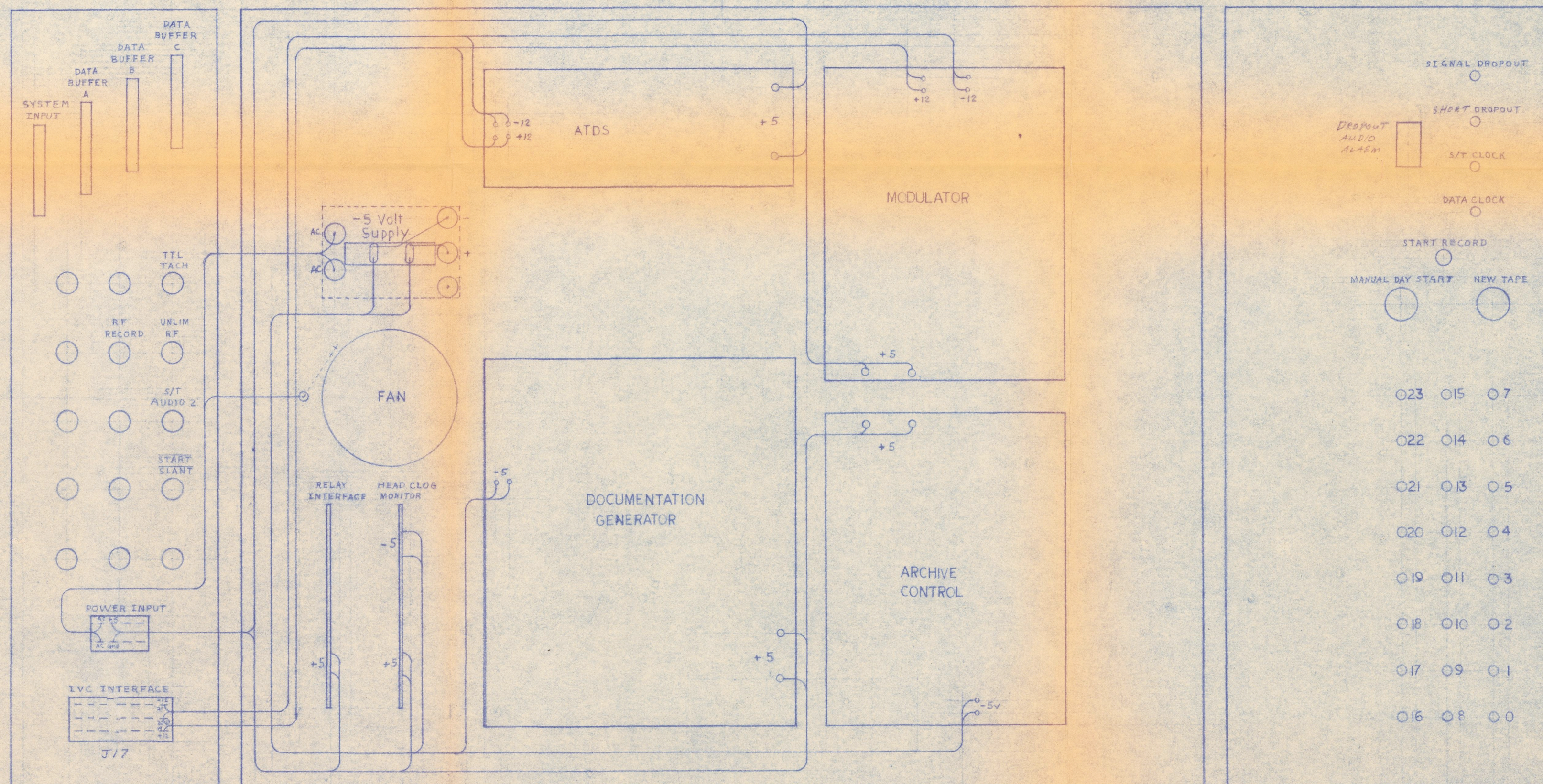
- 14501 2 INPUT NAND
- 745 3 INPUT NAND
- 745 INVERTER
- 74112 JK FLIP FLOP
- LIGHT EMITTING DIODE
- ALL RESISTORS ARE 1/2 WATT 5%

THE UNIVERSITY OF WISCONSIN					
SPACE SCIENCE & ENGINEERING CENTER					
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TITLE					
ARCHIVE CONTROL					
SCALE	DRAWN	DATE	CHECKED	DATE	ENGINEER
DATE	DATE	DATE	DATE	DATE	DATE
NEXT HIGHER ASSEMBLY		PRODUCT	ASSURANCE	DATE	PROJECT APPROVAL
PROJECT NO.	SIZE	SHEET	OF	DRAWING NO.	

Archive Control



REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVED

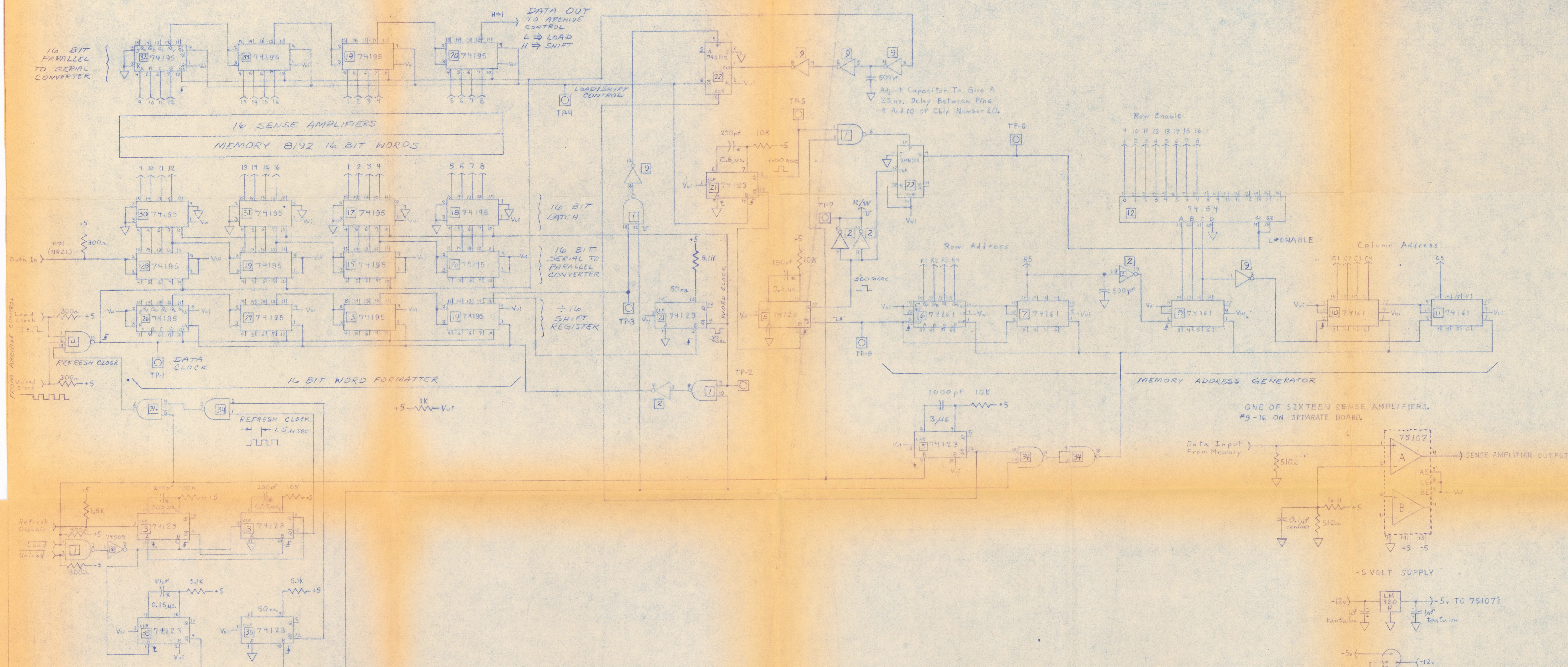


- SIGNAL DROPOUT
- SHORT DROPOUT
- DROPOUT AUDIO ALARM
- S/T CLOCK
- DATA CLOCK
- START RECORD
- MANUAL DAY START
- NEW TAPE
- 023 015 07
- 022 014 06
- 021 013 05
- 020 012 04
- 019 011 03
- 018 010 02
- 017 09 01
- 016 08 00

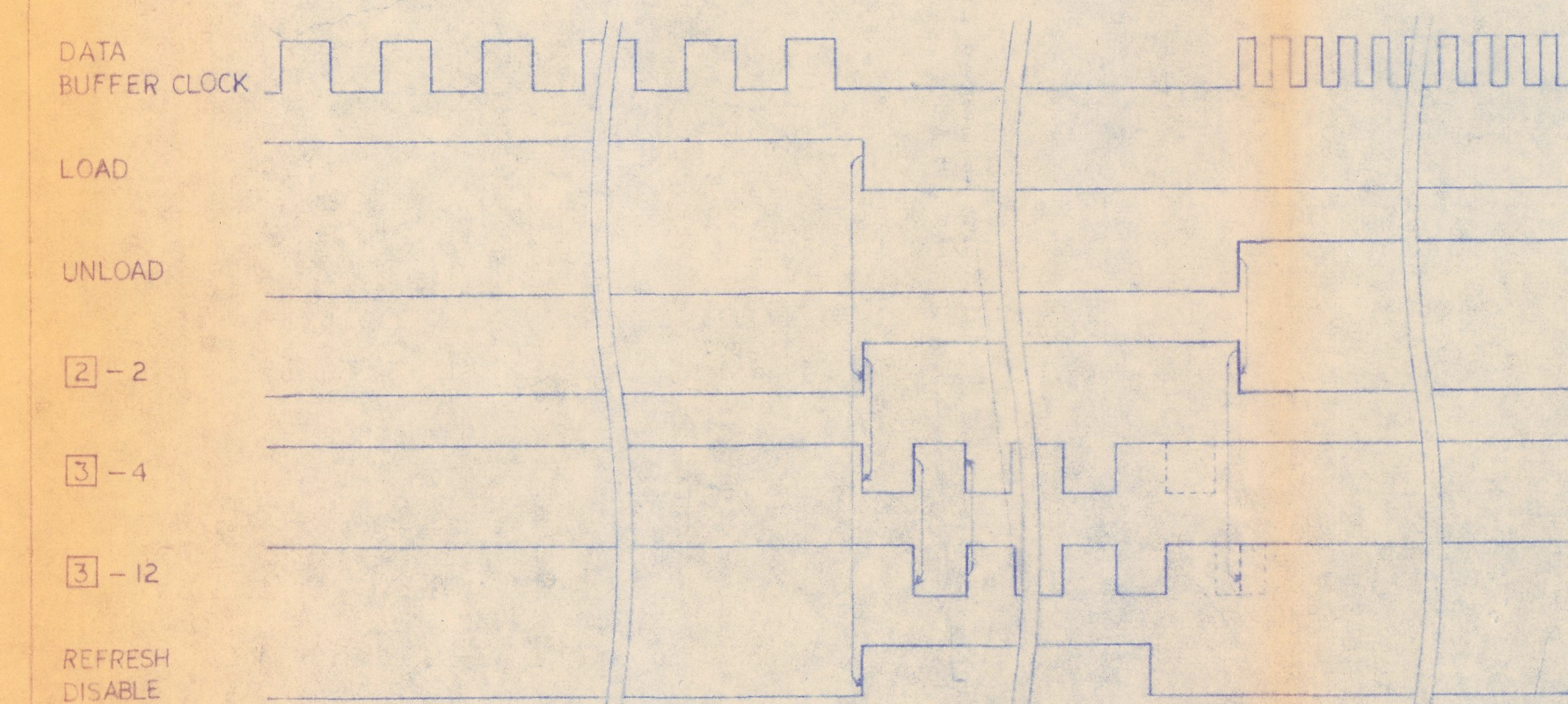
THE UNIVERSITY OF WISCONSIN									
SPACE SCIENCE & ENGINEERING CENTER									
MADISON, WISCONSIN									
TITLE									
ARCHIVE CONTROL LAYOUT									
SCALE	HALF	DRAFTSMAN	DATE	CHECKER	DATE	ENGINEER	DATE		
NEXT HIGHER ASSEMBLY		PRODUCT ASSURANCE							
PROJECT NO.	5010	SIZE	C	SHEET	OF	DRAWING	N Archive Control Layout		



REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVED



BUFFER CLOCK TIMING



- \* THESE CAPACITORS ARE TO BE ADJUSTED TO PROVIDE THE SPECIFIED PULSE WIDTH.
- ALL INVERTORS ARE 74S04s.
- ALL 2 INPUT NANDS ARE 74S00s.
- ALL 3 INPUT NANDS ARE 74S10s.
- ALL RESISTORS ARE 1/8 WATT 5% TOLERANCE.
- ALL CAPACITORS SHOWN ARE MICA 5% UNLESS SHOWN OTHERWISE.
- ALL DECOUPLING CAPACITORS ARE 0.02μF CERAMIC 10%.

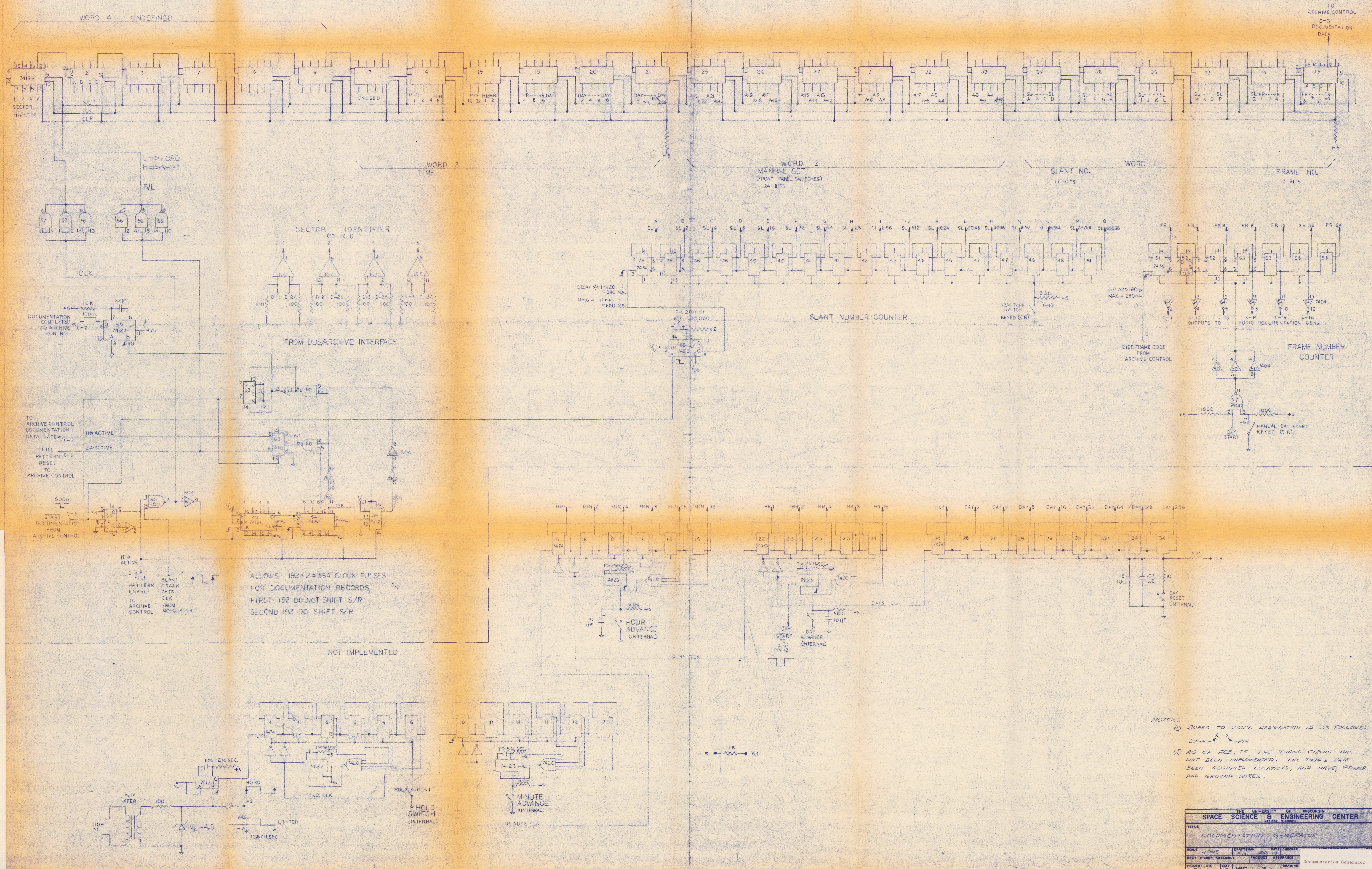
THE UNIVERSITY OF WISCONSIN			
SPACE SCIENCE & ENGINEERING CENTER			
MADISON, WISCONSIN			
TITLE	DATA BUFFER		
SCALE	NONE	DRAFTSMAN	DATE
NEXT HIGHER ASSEMBLY	3010	3-7-75	CHECKER
PROJECT NO.	5010	SIZE	SHEET 1 OF 1
DRAWING NO.			







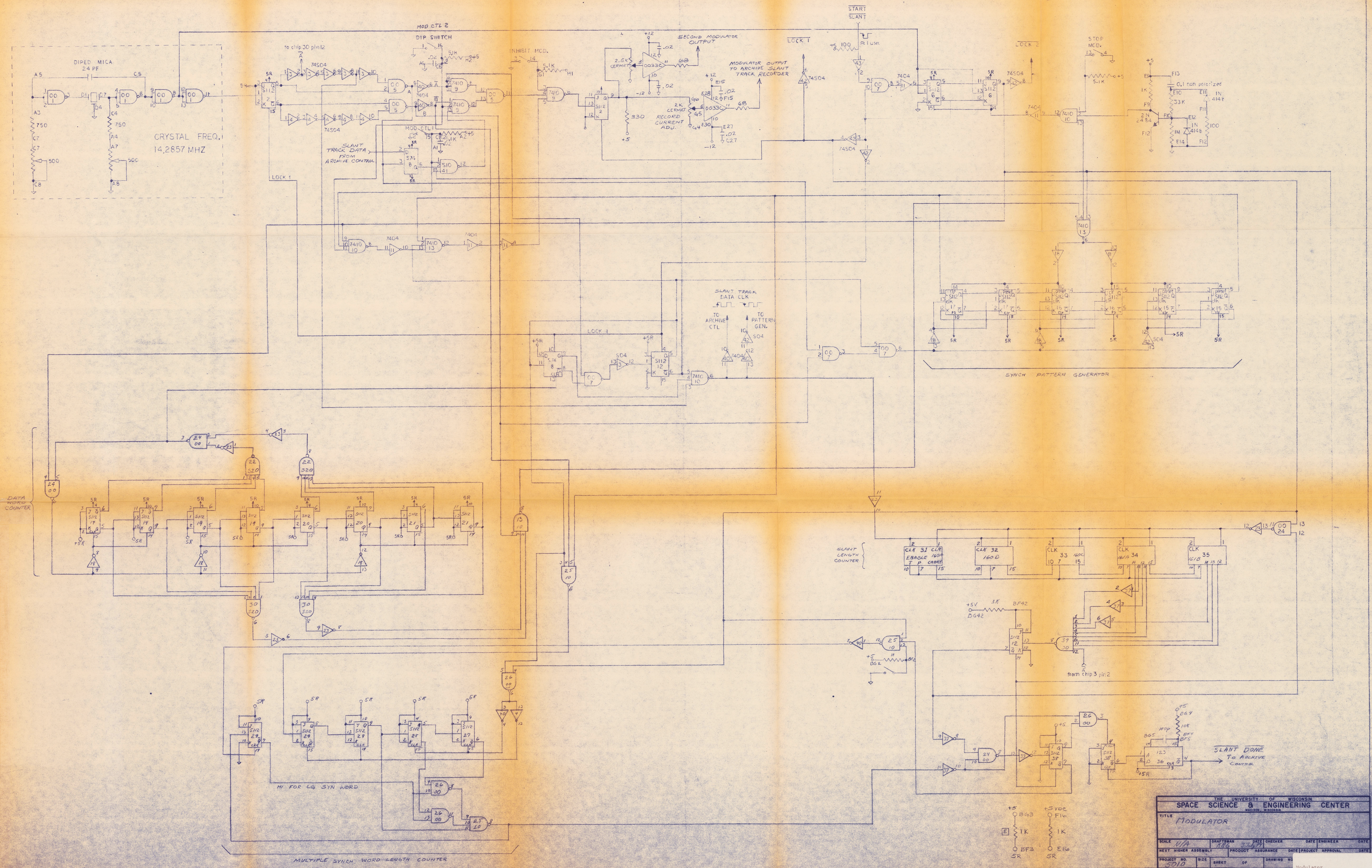
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



NOTES:  
 1) BOARD TO CONN. DESIGNATION IS AS FOLLOWS:  
 CONN X-X-PIN  
 2) AS OF FEB, 75 THE TIMING CIRCUIT HAS NOT BEEN IMPLEMENTED. THE 7414'S HAVE BEEN ASSIGNED LOCATIONS, AND HAVE POWER AND GROUND WIRES.

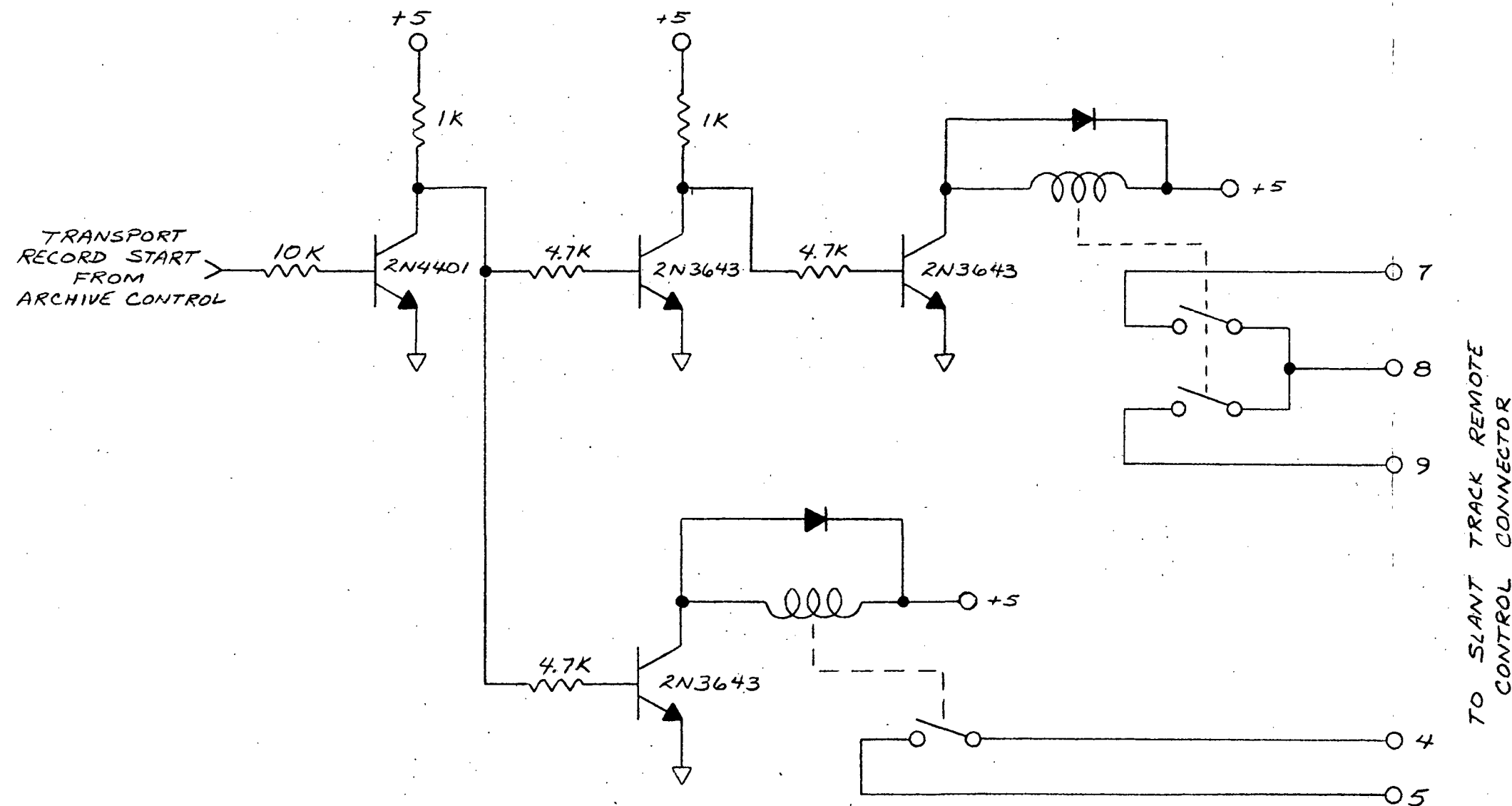
THE UNIVERSITY OF WISCONSIN SPACE SCIENCE & ENGINEERING CENTER MADISON, WISCONSIN			
TITLE DOCUMENTATION GENERATOR			
SCALE: NONE	DRAWN: J.G.	CHECKED: J.G.	DATE: 2-21-74
DESIGNED: J.G.	ASSEMBLY: J.G.	PRODUCTION: J.G.	ASSURANCE: J.G.
PROJECT NO: 5010	SIZE: 11	SHEET: 1	OF: 1









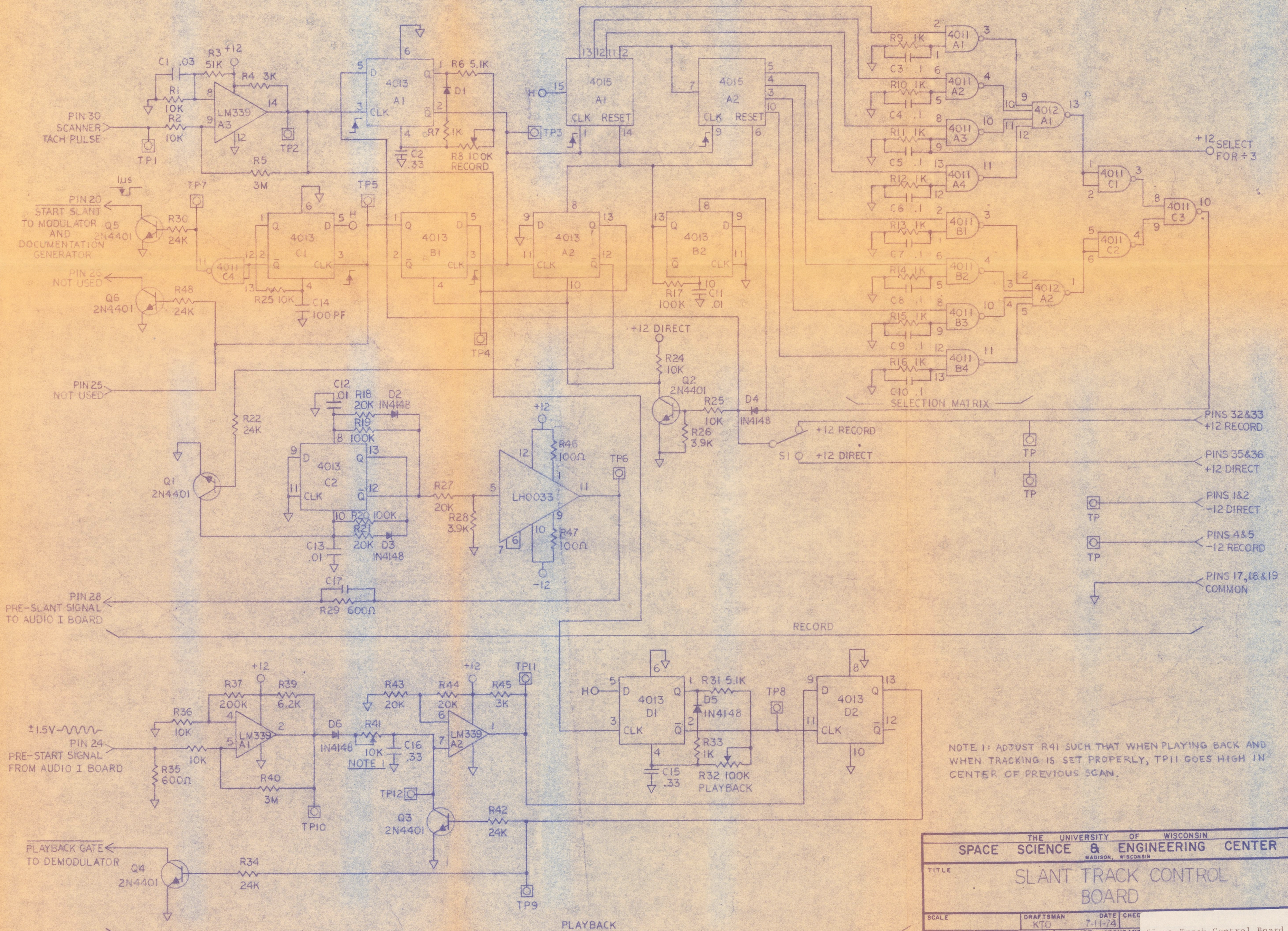


REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED

THE UNIVERSITY OF WISCONSIN					
SPACE SCIENCE & ENGINEERING CENTER					
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TITLE					
ARCHIVE RELAY INTERFACE					
SCALE	NONE	DRAFTSMAN	DATE	CHECKER	DATE
APPROVAL	DATE	DESIGN	ACTIVITY	APPROVAL	DATE
PROJECT NO.	7001	SIZE	B	SHEET	1 OF 1
DRAWING					Archive Relay Interface



REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVED



THE UNIVERSITY OF WISCONSIN			
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MADISON, WISCONSIN			
TITLE SLANT TRACK CONTROL BOARD			
SCALE	DRAFTSMAN KTO	DATE 7-11-74	CHECK
NEXT HIGHER ASSEMBLY	PRODUCT	ASSURANCE	Slant Track Control Board
PROJECT NO. 5010	SIZE	SHEET OF	DRAW